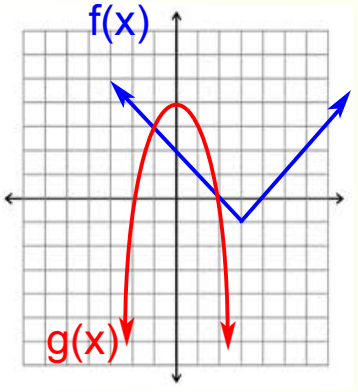
Alg. 2 Warm Up #1-5

1. Find an equation for f(x) and g(x)



2. Solve: $g(x) \geq f(x)$

3. Solve for y:

$$2x - 1 = \sqrt{y + 3}$$

HW Questions (Tan worksheet)

1) $y = -2(x-2)^2 + 35$

$y = -2x + 15$

$y = -2(-1) + 15$

$y = 17$

$-2(x-2)^2 + 35 = -2x + 15$

$-2(x^2 - 4x + 4) + 35 = -2x + 15$

$-2(x^2 - 5x - 6) = 0$

$-2(x+1)(x-6) = 0$

$x = -1, 6$

$(-1, 17)$ $(6, \quad)$

HW Questions (Tan worksheet)

2a) $-1 \leq x \leq 5$

b) $x = 6 \quad x = -11$

c) $x \leq -15$ or $x \geq 29$

d) $-7 < x < \frac{31}{3}$

e) $-6 < y < 10$

f) $2 \leq x \leq 4$

e) $4 > y^2 - 4y - 56$

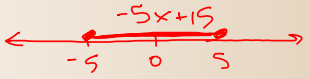
$-4 \quad -4$

$0 > y^2 - 4y - 60$

$0 > (y - 10)(y + 6)$

$-6 < x < 10$

f) $5 \geq |-5x + 15|$



$-5 \leq -5x + 15 \leq 5$

$-15 \quad -15 \quad -15$

$\frac{-20}{-5} \leq \frac{-5x}{-5} \leq \frac{-10}{-5}$

$4 \geq x \geq 2$

$2 \leq x \leq 4$

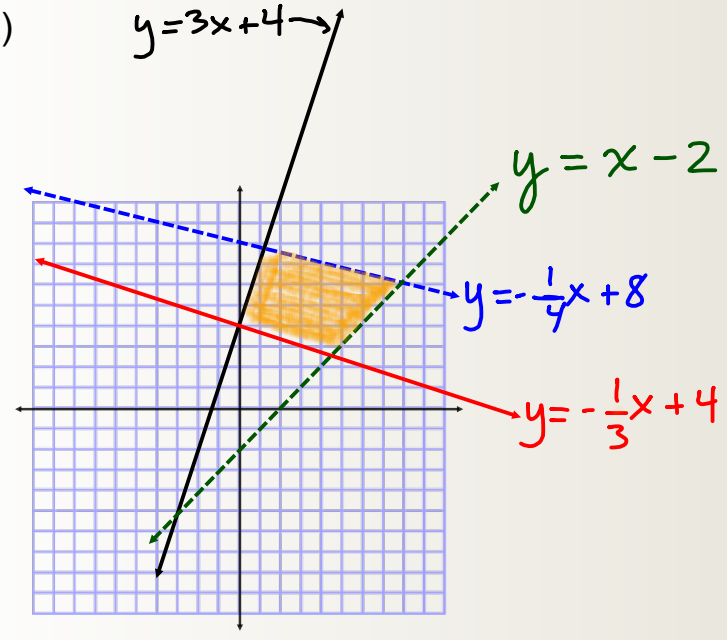
HW Questions (Tan worksheet)

3a)

$$\begin{cases} y < -x + 8 \\ y \leq \frac{1}{4}x + 3 \\ y > -1 \\ y \geq -2x - 3 \end{cases}$$

HW Questions (Tan worksheet)

4a)



HW Questions (Tan worksheet)

4c) $3x+4y \leq 12$

$y > \frac{1}{2}(x-1)(x+3)$

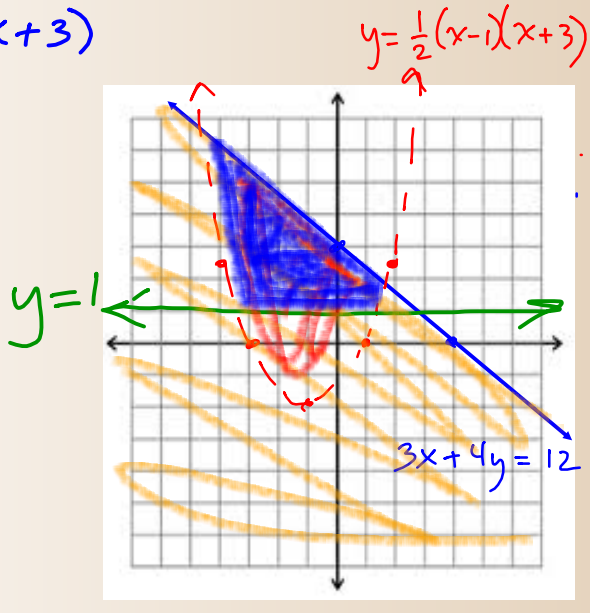
$y \geq 1$

vertex

$y = \frac{1}{2}(-1-1)(-1+3)$

$= \frac{1}{2}(-2)(2)$

$= -2$



HW Questions (Tan worksheet)

5a) $64x^6$

b) $\frac{-6a^7c^7}{b}$

c) $\frac{72y^8}{w^2}$

c) $(2w^2y^4)^3(3w^{-4}y^{-2})^2$

$8w^6y^{12} \cdot 9w^{-8}y^{-4}$

$72w^{-2}y^8$

$a^m \cdot a^n = a^{m+n}$

HW Questions (Tan worksheet)

f) $\frac{9a^{11}b^8}{a^{-4}b^5} \div \frac{27a^7}{4a^3b^{-6}}$

$\frac{9a^{15}b^3}{1} \cdot \frac{4a^3b^{-6}}{27a^7}$

$\frac{4a^{18}b^{-3}}{3a^7}$

$\frac{4a^{11}}{3b^3}$

Green classwork from yesterday:

1) Parent: $y = x^2$ & $y = |x|$

2) $f(x) \rightarrow$ vertical compression of $\frac{1}{4}$ down 1

$f(x) = \frac{1}{4}x^2 - 1$

3) $g(x) \longrightarrow$ reflection over the x-axis

vertical stretch $\frac{3}{2}$

R+ 2, up 6

$g(x) = -\frac{3}{2}|x-2| + 6$

Week 1 Classwork

Warm Up on top

Graphing Inequalities

Writing Inequalities from a graph

Green Worksheet

*Classwork packets get turned in on Fridays.

Prep for chapter 5:

$$\frac{x-3y}{4} + 2(x+1) = 7$$

$$\frac{x-3y}{4} + 2x + 2 = 7 - 2x - 2$$
$$-2x - 2$$

$$\frac{4}{1} \cdot \frac{x-3y}{4} = (5 - 2x)4$$

$$x - 3y = 20 - 8x$$

$$\frac{-3y}{-3} = \frac{20}{-3} - \frac{9x}{-3}$$

$$y = 3x - \frac{20}{3}$$

$$x + 2\sqrt{y+1} = 3x + 4$$

$$\frac{2\sqrt{y+1}}{2} = \frac{2x+4}{2}$$

$$\left(\sqrt{y+1}\right)^2 = (x+2)^2$$

$$y + 1 = x^2 + 4x + 4$$

$$\boxed{y = x^2 + 4x + 3}$$

$$\frac{6x-1}{y} - 3 = 2$$

$$y \cdot \frac{6x-1}{y} = 5y$$

$$\frac{6x-1}{5} = \frac{5y}{5}$$

$$y = \frac{6}{5}x - \frac{1}{5}$$

HW: In the back of the book, page CP19

Do #1-12

Write the original equation and clearly show your steps to solve for y.